EX PARTE VIA ECFS

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Re: Expanding the Economic and Innovation Opportunities of Spectrum through Incentive Auctions, Docket No. 12-268

T-Mobile and Verizon jointly submit this letter to urge the Commission to adopt a "down from channel 51" band plan for the 600 MHz incentive auction. While we continue to support our respective positions on issues raised in this proceeding, we agree strongly that our proposed band plan will best enable the wireless industry to meet the public's burgeoning demand for mobile broadband services. Specifically, we believe the Commission should adopt a band plan that satisfies four principles:

- (1) maximize the amount of paired spectrum available for mobile broadband;
- (2) allow for the cost-effective and timely development of network equipment and enduser devices:
- (3) facilitate a single 3GPP band class to provide interoperability across all paired blocks in the 600 MHz band; and
- (4) allocate for supplemental downlink use any unpaired spectrum not needed to protect 600 MHz broadband operations against harmful interference.

With these four principles in mind, T-Mobile and Verizon submit the attached slides to demonstrate how the Commission could adopt a band plan that puts the 600 MHz spectrum to efficient and productive use. Our band plan is based on a 35x35 MHz Frequency Division Duplexing ("FDD") pairing, which offers more opportunity for carriers to acquire paired spectrum than any FDD proposal. While delivering more paired spectrum, our band plan also has fewer design trade-offs and interference hazards than alternative proposals. Not only will our recommended approach allow devices to have the form and functionality that consumers demand, but it will also protect wireless carriers and broadcasters from harmful interference. In designing our band plan, we also

wanted to facilitate handset interoperability in the 600 MHz band. Because our proposal needs only a single band to cover the 35x35 MHz pairing, both T-Mobile and Verizon intend to support adoption of a single band class through the 3GPP standards development organizations. This will enable carriers to deploy wireless services quickly and will drive manufacturers to develop devices that work on all carrier networks and for all customers.

Finally, our band plan provides the Commission with flexibility under a variety of clearing scenarios, ranging from 120 MHz to 42 MHz. By keeping all paired spectrum above channel 37 and aligning the duplex gap separating uplink and downlink operations, the Commission can use supplemental downlink below channel 37 in high-clearing markets and above channel 37 in low-clearing markets. Supplemental downlink provides significant benefits by enhancing downlink capacity. While some have argued that Time Division Duplexing ("TDD") provides the same flexibility as supplemental downlink, T-Mobile and Verizon believe that FDD is much more suitable for lower frequency spectrum, because it has a higher spectral efficiency, requires fewer base stations, and allows for higher maximum data rates. ¹

The four principles that T-Mobile and Verizon identify here, together with adoption of the scenario-by-scenario analysis detailed in the attachment, will enable the wireless industry to meet the skyrocketing demand for mobile broadband and ensure that the public derives the greatest benefit from the repurposed 600 MHz spectrum.

Sincerely,

/s/

Kathleen Ham Vice President, Federal Regulatory

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T-Mobile USA, Inc.

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 $^{^1}$ See Ex Parte Letter from Trey Hanbury, Counsel to T-Mobile, to Marlene Dortch, FCC, GN Docket No. 12-268 (Sept. 3, 2013).